Bruhat Bangalore Mahanagara Palike
Excecutive Engineer Yelahanka Project Division

Name of Work: Improvements of roads and drains at Ward No.05 to Ward No.06 and 07 connecting roads in Ward No.05 Byatarayanapura Sub Division

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
1	KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete asper specifications.MORTH / Chapter 3(I No-19.1, P No-142)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	1	666.00	1.00	0.80	532.80			
	RHS	1	560.00	1.00	0.80	448.00			
	St.Antonys Church road	1	154.00	1.00	0.85	130.90			
	Culverts	12	6.00	1.30	0.80	74.88			
	Basic rate	82.00							
	Area weightage 6%	4.92							
	Sub total	**86.92**							
	10km Lead & Lift	**100.00**							
	Sub total	**186.92**							
						1186.58	**Cum**	**186.92**	**221795.53**
2	KSRB 4-1.2 : Providing and laying in position plain **cement concrete of mix 1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. (P.No-12,I No-4.2)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	1	666.00	0.90	0.15	89.91			
	RHS	1	560.00	0.90	0.15	75.60			
	St.Antonys Church road	1	154.00	0.90	0.15	20.79			
	Culverts	12	6.00	1.30	0.15	14.04			
	Basic rate	5046.00							
	Area weightage 6%	302.76							
	Sub total	**5348.76**							
						200.34	**Cum**	**5348.76**	**1071570.58**
3	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix **M20 with OPC cement @ 320kgs**, with 20mmand down size graded granite metal coarse aggregates @0.878cum and fine aggregtes @ 0.459cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintles, retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6(I No-4.11,P No-13)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	1	666.00	0.90	0.15	89.91			
		2	666.00	0.15	0.60	119.88			
	RHS	1	560.00	0.90	0.15	75.60			
		2	560.00	0.15	0.60	100.80			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	St.Antonys Church road	1	154.00	0.90	0.15	20.79			
		2	154.00	0.15	0.60	27.72			
	Culverts	12	6.00	1.20	0.20	17.28			
		24	6.00	0.20	0.60	17.28			
	Basic rate	6011.00							
	Area weightage 6%	360.66							
	Sub total	**6371.66**							
						469.26	**Cum**	**6371.66**	**2989965.17**
4	KSRB 4.9.2 : Providing **T.M.T steel reinforcement** for R.C.C workincluding straightening, cutting, bending, hooking, placing in position,lapping and / or welding wherever required, tying with binding wire andanchoring to the adjoining members wherever necessary complete asper design (laps, hooks and wastage shall not be measured and paid)cost of materials, labour, HOM of machinery complete as perspecifications.Specification No. KBS 4.6.3(I No-4.46.2,P No-17)								
	For Drain, 50 kgs/cum		434.70	50.00		21.74			
	For Drain, 75 kgs/cum		34.56	75.00		2.59			
	Basic rate	60607.00							
	Area weightage 6%	3636.42							
	Sub total	**64243.42**							
						24.33	**Tn**	**64243.42**	**1562849.68**
5	KSRB 4-6.4 : Providing and removing **centering, shuttering,** strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2 (I No-4.31,P No-15)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	4	666.00		0.60	1598.40			
	RHS	4	560.00		0.60	1344.00			
	St.Antonys Church road	4	154.00		0.60	369.60			
	Culverts	48	6.00		0.60	172.80			
	Basic rate	293.00							
	Area weightage 6%	17.58							
	Sub total	**310.58**							
						3484.80	**Sqm**	**310.58**	**1082309.18**
6	Providing and Fixing **pre cast covering Slab made out of CC 1:2:4 with 10cm thick** and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	1	666.00	0.90		599.40			
	RHS	1	560.00	0.90		504.00			
	St.Antonys Church road	1	154.00	0.90		138.60			
	Data rate	**2100.00**							
						1242.00	**Sqm**	**2100.00**	**2608200.00**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
7	Providing and fixing pre cast solid cement concrete **kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete (P.No-25,I No-5.30)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	1	666.00			666.00			
	RHS	1	560.00			560.00			
	St.Antonys Church road	1	154.00			154.00			
	Basic rate	313.00							
	Area weightage 6%	18.78							
	Sub total	**331.78**							
						3067.00	**Nos**	**331.78**	**1017569.26**
8	KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8(P.No-183,I No-24.1)								
	New Shanthinagar, 1st main								
	RCC Drain, LHS	1	666.00		0.40	266.40			
	RHS	1	560.00		0.40	224.00			
	St.Antonys Church road	1	154.00		0.40	61.60			
	Basic rate	60.00							
	Area weightage 6%	3.60							
	Sub total	**63.60**							
						552.00	**Sqm**	**63.60**	**35,107.20**
9	Providing and Fixing **pre cast covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge								
	New Shanthinagar, 1st main								
	Culverts	12	6.00	1.20		86.40			
	Data rate	**5111.00**							
						86.40	**Sqm**	**5111.00**	**441590.40**
10	KSRRB M300-14. **Excavation for roadwork** in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1km and complete as per specifications. MORTH Specification No.301 (P.No-143, I No-19.14)								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	2	367.00	0.60	0.20	88.08			
	Ch: 603.00 to 690.00m	1	87.00	5.50	0.20	95.70			
	Basic rate	46.00							
	Area weightage 6%	2.76							
	Sub total	**48.76**							
	12km Lead & Lift	**106.40**							
	Sub total	**155.16**							
						183.78	**Cum**	**155.16**	**28,515.30**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
11	KSRRB M400-6.1. Construction of **granular sub-base** by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. (P.No-155,I No-20.4.2)								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	2	367.00	0.60	0.150	66.06			
	Ch: 603.00 to 690.00m	1	87.00	5.50	0.150	71.78			
	Basic rate	1571.00							
	Area weightage 6%	94.26							
	Sub total	**1665.26**							
						137.84	**Cum**	**1665.26**	**229531.11**
12	KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to **wet mix** macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No-158, I No-								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	2	367.00	0.60	0.225	99.09			
	Ch: 367.00 to 603.00m	1	236.00	5.50	0.100	129.80			
	Ch: 603.00 to 690.00m	1	87.00	5.50	0.225	107.66			
	Amruthnagar, Cut portion								
	1st main	4	7.00	1.00	0.200	5.60			
	2nd main	4	6.00	1.00	0.200	4.80			
	3rd main	4	6.50	1.00	0.200	5.20			
	4th main	4	4.80	1.00	0.200	3.84			
	2nd cross	4	5.30	1.00	0.200	4.24			
	Basic rate	1668.00							
	Area weightage 6%	100.08							
	Sub total	**1768.08**							
						360.23	**Cum**	**1768.08**	**636919.88**
13	KSRRB 500-6.Providing and applying **primer coat** with S.S bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MoRT&H Specification No. 502. (P.No-160,I No-21.6)								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	2	367.00	0.60		440.40			
	Ch: 367.00 to 603.00m	1	236.00	5.50		1298.00			
	Ch: 603.00 to 690.00m	1	87.00	5.50		478.50			
	Basic rate	26.00							
	Area weightage 6%	1.56							
	Sub total	**27.56**							
						2216.90	**Sqm**	**27.56**	**61,097.76**

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
14	KSRRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-162,I No-21.17.6)								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	2	367.00	0.60	0.05	22.02			
	Ch: 367.00 to 603.00m	1	236.00	5.50	0.05	64.90			
	Ch: 603.00 to 690.00m	1	87.00	5.50	0.05	23.93			
	Basic rate	5929.00							
	Area weightage 6%	355.74							
	Sub total	**6284.74**				**110.85**	**Cum**	**6284.74**	**696632.01**
15	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 (P.No-161,I No-21.7)								
	For BC								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	1	367.00	5.20		1908.40			
	Ch: 367.00 to 603.00m	1	236.00	5.50		1298.00			
	Ch: 603.00 to 690.00m	1	87.00	5.50		478.50			
	Amruthnagar								
	1st main	1	168.00	7.00		1176.00			
	2nd main	1	170.00	6.00		1020.00			
	3rd main	1	178.00	6.50		1157.00			
	4th main	1	184.00	4.80		883.20			
	2nd cross	1	182.00	5.30		964.60			
	Basic rate	11.00							
	Area weightage 6%	0.66							
	Sub total	**11.66**				**8885.70**	**sqm**	**11.66**	**103607.26**
16	KSRRB M500-19. Providing and laying **bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder a and filler, transporting the hot mix to work site, laying with a paver finisher with to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects as per specifications. using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4 % VG-30 Bitumen(P.No-165,I No-21.22.6)								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 367.00m	1	367.00	5.20	0.04	76.34			
	Ch: 367.00 to 603.00m	1	236.00	5.50	0.03	38.94			
	Ch: 603.00 to 690.00m	1	87.00	5.50	0.03	14.36			
	Amruthnagar								
	1st main	1	168.00	7.00	0.04	47.04			
	2nd main	1	170.00	6.00	0.04	40.80			
	3rd main	1	178.00	6.50	0.04	46.28			
	4th main	1	184.00	4.80	0.04	35.33			

Sl No	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	2nd cross	1	182.00	5.30	0.04	38.58			
	Basic rate	6683.00							
	Area weightage 6%	400.98							
	Sub total	**7083.98**							
						337.66	**Cum**	**7083.98**	**2391997.94**
17	KSRRB M800-13.**Road Marking with Hot Applied** Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-								
	New Shanthinagar, 1st main								
	Ch: 0.00 to 690.00m	2.5	690.00	0.10		172.50			
	Amruthnagar								
	1st main	2.5	168.00	0.10		42.00			
	2nd main	2.5	170.00	0.10		42.50			
	3rd main	2.5	178.00	0.10		44.50			
	4th main	2.5	184.00	0.10		46.00			
	2nd cross	2.5	182.00	0.10		45.50			
	Basic rate	512.00							
	Area weightage 6%	30.72							
	Sub total	**542.72**							
						393.00	**Sqm**	**542.72**	**213288.96**
								Total Construction Cost	**15392547.22**
								DPR Charges	**144000.00**
								PMC Charges	**158000.00**
								Sub Total	**15694547.22**
								Miscellaneous & Rounding off	**305452.78**
								GRAND TOTAL	**16000000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2016-2017, issue rates and Data Rates.

Assistant Engineer
Yelahanka Project Division,
BBMP Bangalore

Asst. Executive Engineer,
Yelahanka Project Division,
BBMP Bangalore

Executive Engineer,
Yelahanka Project Division,
BBMP Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

PROJECT DIVISION YELAHANKA ZONE

ABSTRACT

Package-10

NAME OF WORK : 1. Construction of anganawadi building at kogilu in ward no 05 byatarayanapura sub division.2) Improvement of road and drain at ward no 05 to ward no 06 and 07 connecting roads in ward no 05 byatarayanapura sub division .3) Improvement of roads and drain at telecom layout cross roads in ward no 05 byatarayanapura sub division .4)Improvement of roads and drain at shivaramakaranthanagara 1st stage cross roads in ward no 05 byatarayanapura sub division

SL NO	DESCRIPTION	SANCTIONED AMOUNT (IN LAKHS)
1	Construction of anganawadi building at kogilu in ward no 05 byatarayanapura sub division	20.00
2	Improvement of road and drain at ward no 05 to ward no 06 and 07 connecting roads in ward no 05 byatarayanapura sub division	160.00
3	Improvement of roads and drain at telecom layout cross roads in ward no 05 byatarayanapura sub division	50.00
4	Improvement of roads and drain at shivaramakaranthanagara 1st stage cross roads in ward no 05 byatarayanapura sub division	50.00
	TOTAL AMOUNT	**280.00**
	NOTE The sanctioned Amount includes estimate cost, DPR,PMC,&TP charges	

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Assistant Executive Engineer
Project- Yelahanka Division

Executive Engineer
Project-Yelahanka Division
20/11/17

Technical Sanction
Accorded For 2.80.00 lakh Rs
Head of A/C P3112
CER NO :390 Dt:28/11/17

TA CE (YNK)